

Figure 1

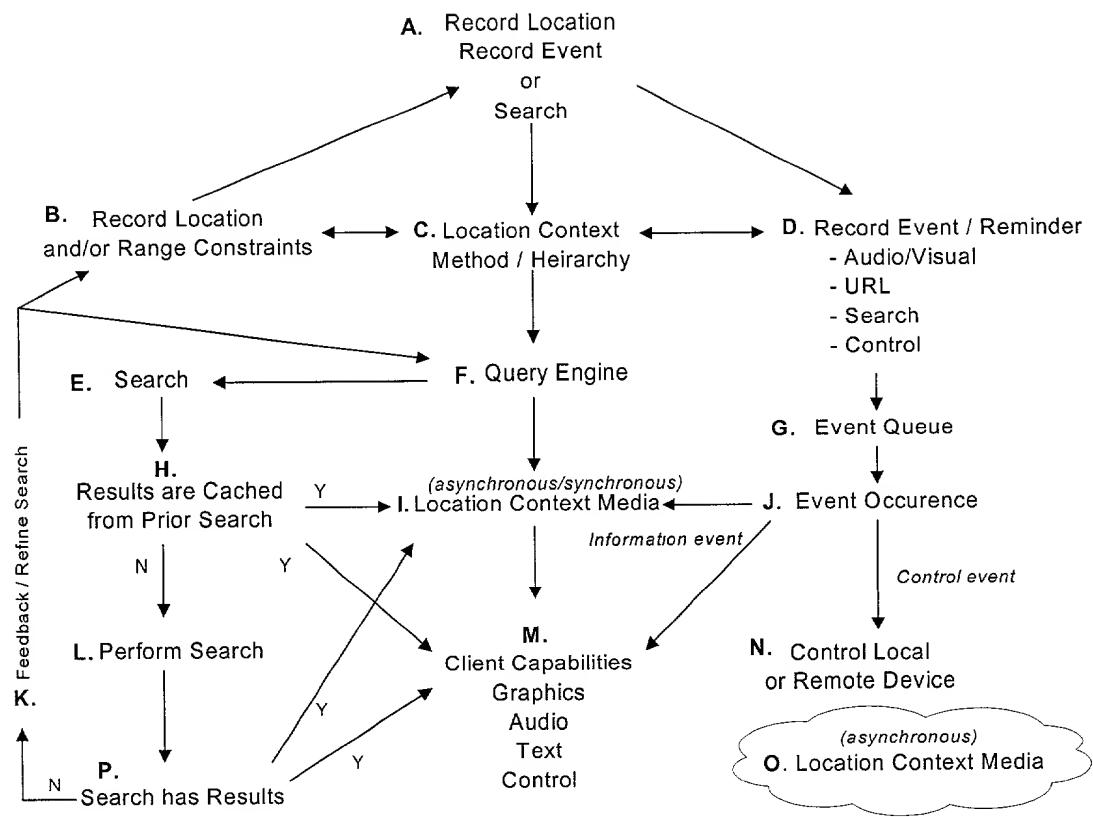
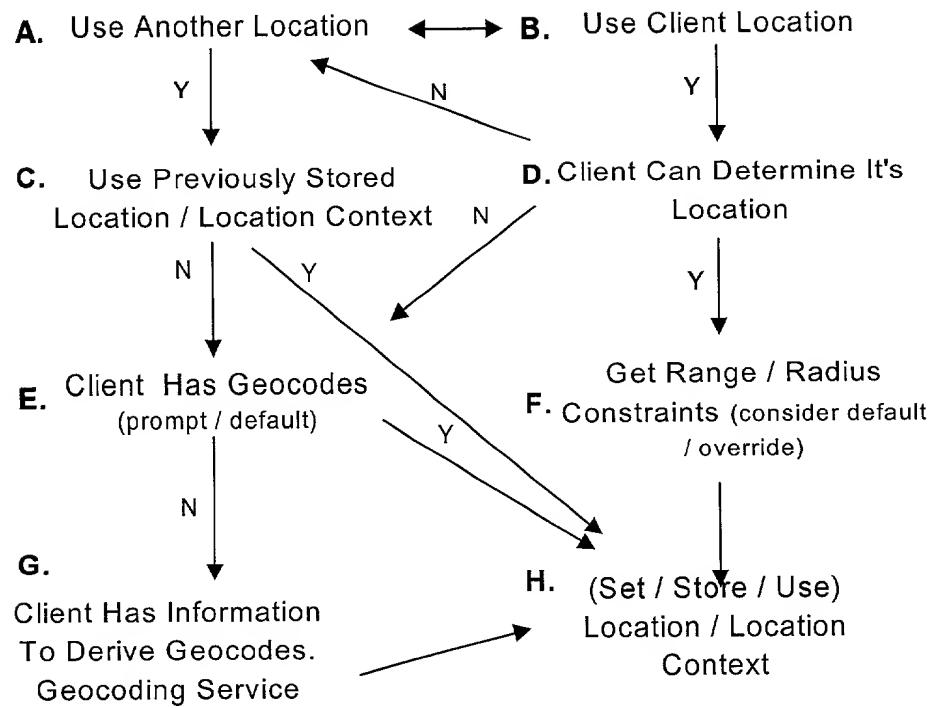


Figure 2

**Figure 3**

ID	Latitude	Longitude	Name	Description	Range	Street Address ID
2345	32.77754	-77.12421	Home Alexandria VA		2	34
2346	38.622203	-76.516577	Breezy Point Marina		10	243
2347	39.02831	-77.448777	Work Loudon Site		5	4
2348	41.872833	-87.624357	Chicago Riverside Hotel		12	127

Figure 4

IP_Address	Latitude	Longitude	Created
63.20.247.227	38.4986	77.0876	Feb 6 2000 5:50PM
63.20.247.227	38.4986	77.0874	Feb 6 2000 5:52PM
63.21.58.221	38.4986	77.0873	Feb 6 2000 11:30PM
63.13.89.185	38.4984	77.0877	Feb 11 2000 10:50AM
63.15.231.53	38.4987	77.0885	Feb 11 2000 4:02PM
151.200.100.4	38.4985	77.0874	Feb 11 2000 9:11PM
151.200.100.4	38.4982	77.0877	Feb 12 2000 2:22AM
151.200.100.4	38.4983	77.0875	Feb 12 2000 3:14AM

Figure 5

ID	Service Context	Service ProviderID	Local or Remote	MIME type	Dimensions	Lat1	Lon1	Lat2	Lon2	Location
00400	4321	1000	R	audio/mp3	1 min	38.91	-77.2	39.01	-77.3	https://adserv.acmebank.com/ads.cgi?id=30
00401	2234	1001	L	image/png	200x300	39.91	-77.3	39.99	-77.4	/ad/local/images/403A69.png
00402	101	1000				

Figure 6

Lat1	Lat2	Lon1	Lon2	Type	TimeContext	ItemID	DeviceID or Location
32.77754	33.12455	-77.1242	-77.2275	Audio		/q/audioq/A5F339	151.22.122.40:7900
32.12421	33.14241	-77.1242	-77.2275	Control	1600-0500,M-F	q/cntrlq/87ACEF	06:43:53:09:04

Figure 7

SERVICEID	LATITUDE	LONGITUDE	CLASS	SUBCLASS	TIMECONSTRAINT	SERVICEPROVIDERID
123456789	38.92319	-77.222517	1.3.4.5.7	5.7	0 11 4 * mon-wed	1000
123456790	38.91606	-77.237926	1.3.4.5.100	8.4	10 6 * * *	1000
123456791	38.90663	-77.229219	1000	45	0 */2 * * *	1.3.100.2
123456792	38.85912	-77.224644	2000	55	0 23-7/2,8 * * *	1.3.100.3

Figure 8

ClassID	Description	SIC	NAICS
1.5.3.7.6	Agencies, real estate	6531	53121
1.5.3.7.6.1	Commercial real estate	6531	531210
1.5.3.7.5.4	Office of Notaries	Null	54112
1.5.3.7.11	Attorneys' offices	8111	541110
1.5.3.7.12	Patent attorneys' offices	8111	541110
1.5.3.7.42	Architectural Services	8712	54131
1.5.3.7.42.7	Landscape Architectural Serv	781	54132
1.5.3.7.25	Music Publishing	Null	51223

Figure 9

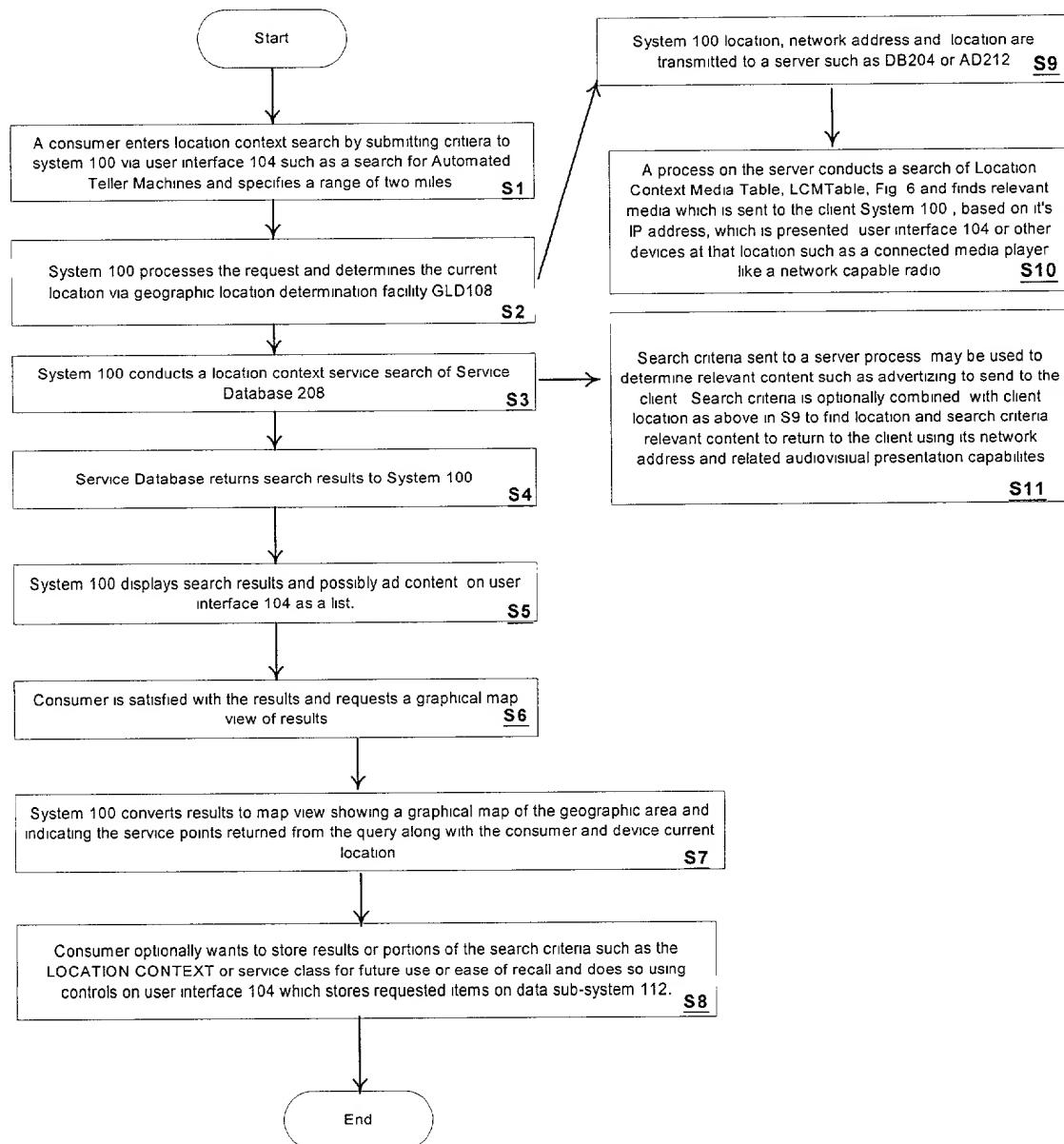


Figure 10

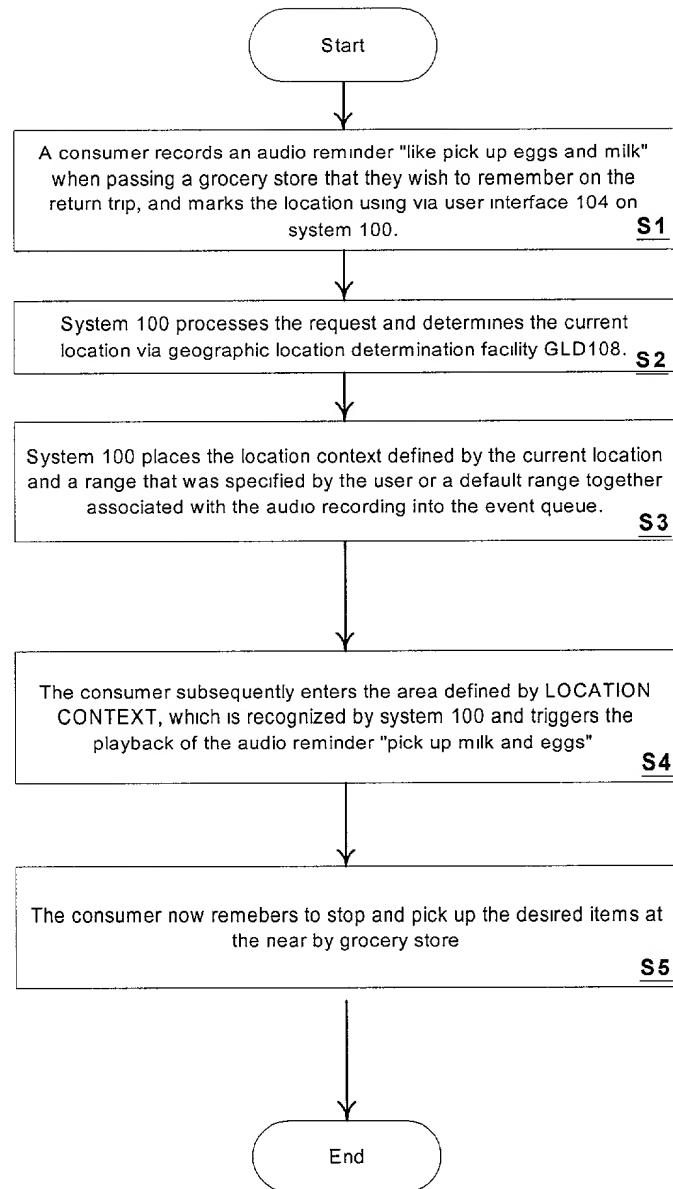


Figure 11

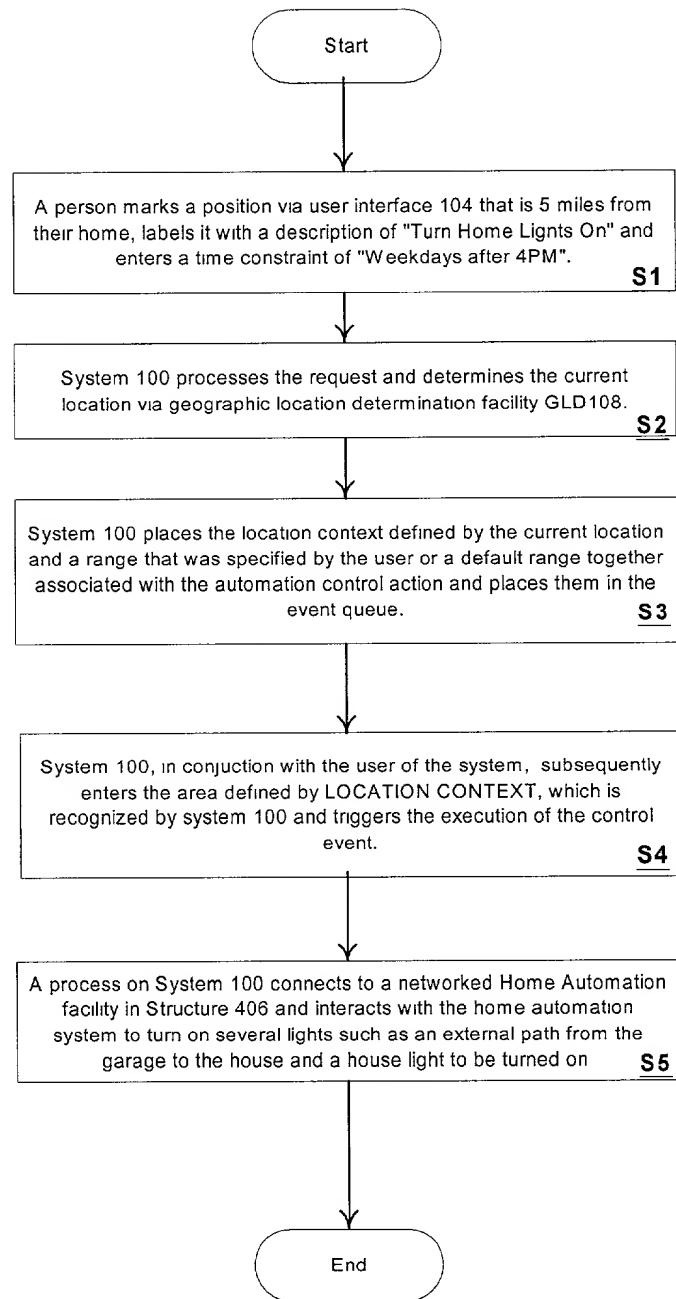
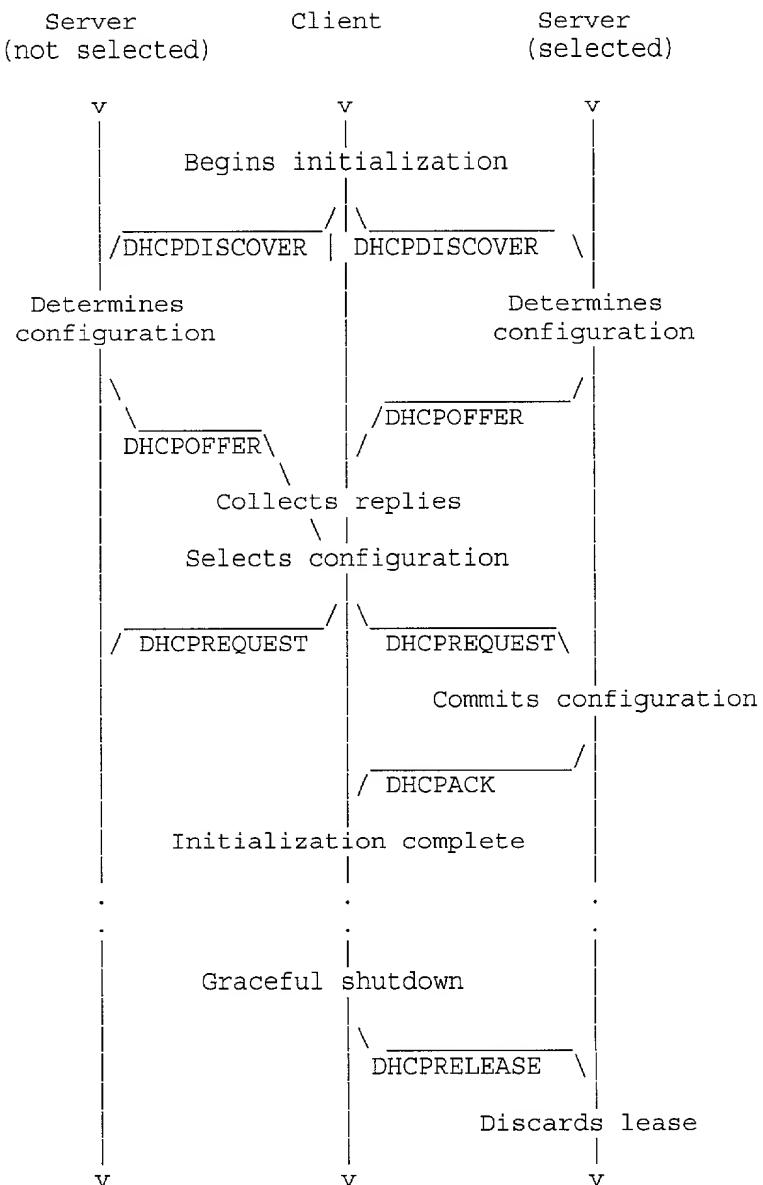


Figure 12

**Figure 13**

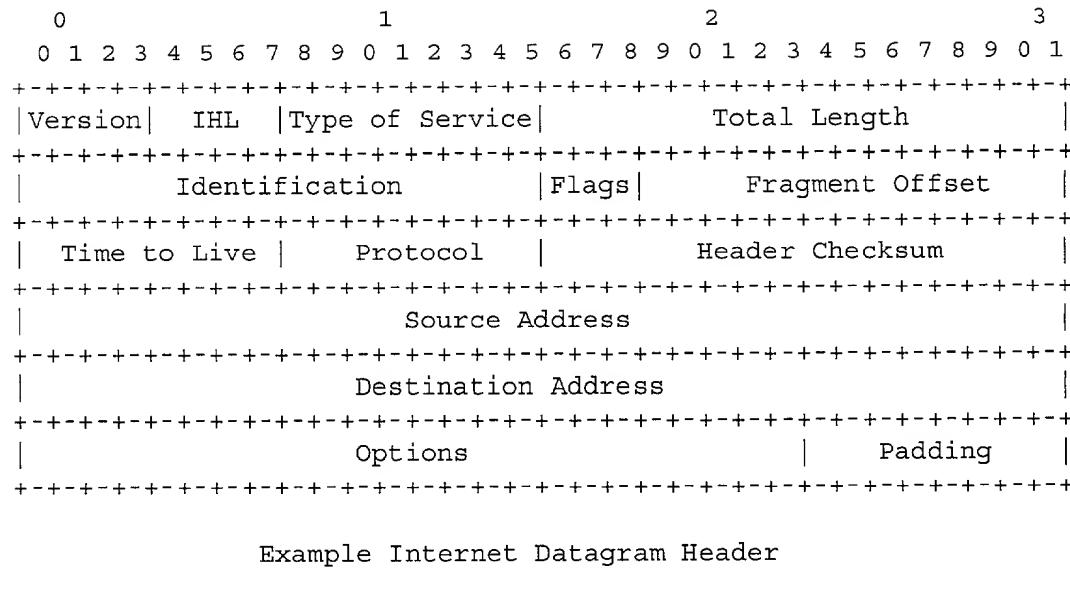


Figure 14

Sample client send transmission method with custom protocol.

An example client server interaction may look as follows where S is the Server and C is the Client

```
C: GEOS Hello apollo.no.net
S: 220 geoserver.geo.net HELLO user@no.net [123.100.200.5] Pleased to meet you
C: GEO:NMEA0183:$GPGGA,222949,3849.853,N,07708.757,W,1,03,5.1,84.1,M,034.0,M,*43
S: 200 OK
```

Below is a transcript of a functioning GeoServer/Client communication. The transcript is not meant to limit the present invention, but to illustrate a method for client server exchange of IP address and spatial information.

```
7479: Near2 GeoServer server started
-- listening on TCP port 2345 at : Sun May 7 18:29:32 2000
7479: Connect mg-20425422-153.ricochet.net
-- from 204.254.22.153 on port 1036 at : Sun May 7 18:29:32 2000

Client says: NGPS Hello (NMEA0183/GGA):3849.853,N,007708.757,W

**NGPS protocol Hello from 204.254.22.153
-- got - 3849.853 N, 07708.757 W
-- now - lat 38.83, lon -077.15
**Recording client location:
-- 204.254.22.153
-- 38.83 -077.15
-- 05/07/2000 22:29:44 GMT
```

Figure 15